



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/576,885 | 04/24/2006 | Mitsuo Kimura | JFE-06-1071 | 6151 |

35811 7590 07/07/2009
IP GROUP OF DLA PIPER LLP (US)
ONE LIBERTY PLACE
1650 MARKET ST, SUITE 4900
PHILADELPHIA, PA 19103

| |
|----------|
| EXAMINER |
|----------|

FOGARTY, CAITLIN ANNE

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1793

| | |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

07/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

DETAILED ACTION

Status of Claims

1. Claims 25, 27 – 29, 31, 35, 36, and 48 – 50 are pending where claim 50 is new. Claims 1 – 24, 26, 30, 32 – 34, and 37 – 47 have been cancelled.

Status of Previous Rejections

2. The 35 U.S.C. 103(a) rejection of claims 25, 27 – 29, 31, 35, 36, 48, and 49 as being unpatentable over JP 2002-004009 in view of "Wrought Stainless Steels-Fabrication Characteristics" from the *ASM Handbook* has been maintained.

The provisional rejection of claims 25, 27 – 29, 31, 35, and 36 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24 – 35 of copending Application No. 10/568,154 has been maintained.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 25, 27 – 29, 31, 35, 36, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English machine translation of JP 2002-004009 (hereinafter JP '009) in view of "Wrought Stainless Steels-Fabrication Characteristics" from the *ASM Handbook*.

JP '009 in view of the *ASM Handbook* is applied to claims 25, 27 – 29, 31, 35, 36, 48, and 49 as set forth in the February 18, 2009 Office action.

5. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over the English machine translation of JP 2002-004009 (hereinafter JP '009) in view of

Art Unit: 1793

“Wrought Stainless Steels-Fabrication Characteristics” from the *ASM Handbook* as applied to claim 25 above, and further in view of “Structure/Property Relationships in Irons and Steels-Role of Microstructure” from *Metals Handbook Desk Edition*.

JP '009 in view of the *ASM Handbook* differs from instant claim 50 because it does not teach a similar yield strength. Rather, [0009] of JP '009 teaches that the high strength stainless seamless steel pipe has a yield strength of 860 MPa or more which is above the range recited in the instant claim. However, p. 15-22 of the *Metals Handbook Desk Edition* teaches that tempering a martensitic steel above 425°C significantly improved ductility and toughness but at the expense of hardness and strength. Therefore, if a lower yield strength is desired, it would have been obvious to one of ordinary skill in the art that in order to increase the tempering temperature in the method of making the steel of JP '009 in order to achieve a lower yield strength of the steel with an increased ductility and toughness.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

Art Unit: 1793

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 25, 27 – 29, 31, 35, 36, 48, and 49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24 – 34 of copending Application No. 10/568,154 as set forth in the February 18, 2009 Office action.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

8. Applicant's arguments filed April 20, 2009 have been fully considered but they are not persuasive.

Arguments are summarized as follows:

a. JP '009 really provides discussion of retained austenite (gamma) and that the amount of such retained austenite should be 10% or less. There is no discussion of the amount of martensite and no discussion of the amount of ferrite.

b. Referring to Table 1 of JP '009, Steel Nos. 1-10 and 17-20 are the inventive steels. In every instance those steels are described as martensite plus austenite in various percentages and the amount of austenite is shown in the adjacent column. Thus, when the fact that the table does not provide any disclosure of the amount of ferrite and there is no discussion of the amount of

Art Unit: 1793

ferrite is frankly acknowledged in the rejection, it inherently follows that JP '009 is non-enabling with respect to teachings concerning the amount of ferrite.

c. All of the yield strengths taught in Table 1 of JP '009 are well into the 900+ MPa range with the exception of a single example. This is sharply contrasted to the Applicant's steels which have much lower yield strengths. This is a striking difference of nearly 300 MPa in respective yield strengths.

d. Looking to ASM Handbook on p. 13 and 14 it can be seen that the amount of ferrite is not disclosed as exceeding 15% when the maximum amount of Cr is at 18%. The Applicants respectfully submit that not only does ASM Handbook not lead those skilled in the art to increase the amount of ferrite phase about 15%, but it would lead one skilled in the art to have a reasonable expectation of success that when the amount of Cr is at a maximum of the claimed 18% range, the amount of ferrite would be much, much lower.

Examiner's responses are as follows:

a. As discussed in the February 18, 2009 Office action, [0010] of JP '009 teaches that the stainless seamless steel pipe has a base phase of martensite and contains 10% or less residual austenite which overlaps with the range recited in instant claim 25. JP '009 does not specifically teach that the steel pipe comprises about 10 to about 60% ferrite phase, however, [0031] of JP '009 teaches that a diffraction intensity from (211) of alpha is present. Therefore, ferrite phase is present in the stainless steel seamless pipe. Since the composition of the stainless steel pipe is similar to the composition of the instant

Art Unit: 1793

invention and since the pipe is made using a similar method, one of ordinary skill in the art would expect the stainless steel seamless pipe of JP '009 to have a similar volume fraction of ferrite phase. Applicant has not provided evidence to show that the stainless seamless steel pipe of JP '009 is materially different from the pipe of the instant invention.

b. The scope of JP '009 is not limited to the specific embodiments it teaches (see *In re Fracalossi* 215 USPQ 569 (CCPA 1982)). As discussed above in response (a), [0031] of JP '009 teaches that a diffraction intensity from (211) of alpha is present. Therefore, ferrite phase is present in the stainless steel seamless pipe.

c. See rejection of new claim 50 above.

d. The Examiner respectfully disagrees with Applicant's interpretation of Fig. 30 from the ASM Handbook. Fig. 30 shows the effect of the chromium equivalent and the nickel equivalent on the amount of ferrite present in a martensitic stainless steel. The chromium equivalent equals $\%Cr + \%Mo + 1.5\%Si + 0.5\%Nb$. Therefore, Applicant's assertion of a Cr equivalent of 18 would mean that $\%Mo$, $\%Si$, and $\%Nb$ are 0% which is not within the scope of the instant claims. However, when the amounts of Mo, Si and Nb are factored in to the Cr equivalent calculation within the instant ranges, it is clear that Fig. 30 of the ASM Handbook shows that a base martensite phase with about 15% ferrite phase is desired for an alloy within the instant compositional ranges.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CAITLIN FOGARTY** whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CF

/Scott Kastler/
Primary Examiner, Art Unit 1793